

TEMPORAL FILTERING USING OBJECT MOTION ESTIMATION

Abstract of the Disclosure

A method and apparatus for temporally filtering a video sequence using motion compensation in which motion information captures the motion of objects is disclosed. Pixels from a current frame are aligned with matching pixels from previous and/or future frames according to the motion of the surrounding object of arbitrary shape. A weighted average of the corresponding pixels is taken for each pixel in the current frame to produce a filtered version of the current frame. The weights may be adjusted to compensate for similarities between the frames and for blur transitions near object boundaries. A lighting offset may also be used to prevent erroneous lighting shifts during filtering.